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# A Critical Systematic Review of Studies Regarding Resilience in Turkey: A Call for the Socio-ecology of Resilience Perspective

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**Abstract** Even though international research has shifted from problem-driven to strength-based approach such as resilience, very little is known in a non-Western context, Turkey. As a result, this paper aims to fill research gaps in existing peer-reviewed literature by targeting to promote more effective interventions and programs with regard to resilience approach in Turkey. A critical systematic review of available literature was carried out based on peer-reviewed articles published in English and Turkish using PubMed, Ovid, EBSCO HOST, ERIC, ProQuest databases, and hand searching. Four hundred fifty-two articles were retrieved of which 34 met the inclusion criteria. Results depict that the majority of studies solely employed individual-based resilience approach. Even though international resilience research has begun to match resilience to socio-ecological perspective, Turkish scholars hardly do so. Only pointing out this gap in resilience research is addressed, will social workers be help enabling Turkish individuals to fuel resilience.

**Keywords** Resilience, Turkey, Socio-ecological Perspective, Protective Factors, Risk Factors

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## Introduction

Individuals have been rapidly at risk due to economic crises, poor quality of education systems, food shortages, natural disasters, crime, and violence worldwide. Following this, multidisciplinary professionals tend to empower individuals decentering attention from deficits, focusing rather on strengths and coping skills. Therefore, there is a growing interest in resilience, assets, buoyancy (Ungar & Liebenberg, 2013) to enhance individual well-being. Apart from assets and buoyancy, valuing moderate amount of stress or adversity, resilience is a dynamic and on-going process (Rutter, 1985) in which individuals recover from severe adverse circumstances or stressful life events (Ungar,

2010). Hence, it is dominantly named as ordinary magic (Masten, 2001) focusing on strengths rather than deficits (Khanlou & Wray, 2014) that empowers marginalized or vulnerable social groups (Brodsky & Cattaneo, 2013; Ungar, 2001). Accordingly, resilience should occur under two prominent conditions: (1) severe adversity or threat against one's well-being or health; and (2) recovery from stressful experiences resulting in positive psychology development (Masten, Best, & Garmezy, 1990; Werner & Smith, 1982).

During the early decades of resilience research, investigators built resilience in terms of personality traits such as self-esteem or assertiveness (Luthar, Cicchetti, & Becker, 2000). Recently, a growing understanding of socio-ecological approach was driven upon person-in-environment principle rooted in the ecological framework (Bronfenbrenner, 1993) relied on interactions (Ungar, 2004; Ungar, 2011, 2012; Ungar, Ghazinour, & Richter, 2013) among individuals and social systems based on micro, meso, and macro levels. Resilience in socio-ecological perspective is the sum of negotiation and navigation among protective and risk factors and coping skills embedded in ecological niches to optimize success and sustain well-being underpinning unique cultural contexts, particularly a popular concept in the social work profession (Ungar, 2011). Following this, the priority in this novel perspective has been primarily applied to mental health, well-being, and life satisfaction varying by diverse social contexts (Khanlou & Wray, 2014; Ungar, 2001). A handful of international studies have revealed that contextual factors have an impact on resilience (Masten, 2014; Theron & Donald, 2012; Theron & Theron, 2010; Ungar, 2011, 2013, 2014) since risk and protective factors may differ across cultures (O'Dougherty, Wright, Master, & Narayan, 2013; Ungar, 2012). In recent years, the socio-ecology of resilience has been popular in child and youth studies (Ahern, 2006), particularly on school engagement (Ungar & Liebenberg, 2013), mental health (Wong, 2008), perceived discrimination (Romero, Edwards, Fryberg, & Orduna, 2014), and community (Brodsky & Cattaneo, 2013).

According to the study findings, it has been suggested that resilience is a socio-cultural concept since protective and risk factors, and coping skills vary across diverse socio-cultural contexts (Ungar et al., 2006). For example, Felsman (1989) found that gang affiliation may be a significant protective factor among street children in Colombia. On the contrary, for those in Georgia, parental warmth could be an important protective factor (Murray, Singh, Surkan, Semrau, Bass, & Bolton, 2012). Ultimately, protective and risk factors and coping skills should be studied within ecological niches.

Although international scholars have begun to conduct studies underpinning strength-driven approach such as socio-ecology of resilience perspective rather than problem-based approach, very little research addressed resilience in Turkey (Sahin-Baltaci & Karatas, 2014). Likewise, among existing studies in the Turkish context, coping skills, and psychological robustness have been prevalent with respect to resilience (Akgemci, Demirci, & Kara, 2013; Oksuz & Guven, 2014), however, it has not been a fully embraced approach in Turkey (Oktan, 2012). Additionally, it has been studied particularly from a psychological perspective (Oktan, 2012) rather than a social work approach. Ultimately, resilience approach should be called Turkish scholars' attention to empower (Karatas & Cakar, 2011) vulnerable individuals in which social workers prioritizes empowerment and strength-based approaches concordance with socio-ecology of resilience perspective (Ungar, 2011). Therefore, this review will help future researchers and professionals consider possible protective factors, coping skills, and strengths to flourish resilience. Accordingly, this paper will examine the literature to highlight the inevitably need for investigating the possible protective factors, coping skills, and strengths of Turkish population for positive development.

## Methodology

### Search Strategy

The author searched studies regarding resilience in the Turkish context via the PubMed, Ovid, EBSCO HOST, ERIC, ProQuest, Google scholar, and websites, such as Researchgate from March 2014 and repeated on September 2014 using controlled vocabulary terms and key words related to resilience approach in the Turkish context. Moreover, the author hand-searched the reference lists of overall included articles to identify additional resources.

The search was done on repeated searches using the same search strategy were undertaken from until 29th September 2014 to ensure that no new publications were omitted. The key search words used were: "Turkish resilience", "resilience Turkey", "resiliency Turkey", "Turkish resiliency", "strengths Turkey", "protective factors Turkey", and "coping skills Turkey".

### Quality assessment and inclusion criteria

With regard to Barbour (2001), the checklist of this study consists of peer-reviewed publications; published in English and Turkish; focused on resilience in any type of population; and reported qualitative or/and quantitative findings. Only thirty-four met the inclusion criteria (Figure 1).

## Results

Thirty-four (n=34) peer-reviewed papers published between 2006 and 2014 in Turkey, were included in the synthesis (Table 1) and reviewed based on the Standards for Reporting of Diagnostic Accuracy (STARD) (Bossuyt et al., 2003).

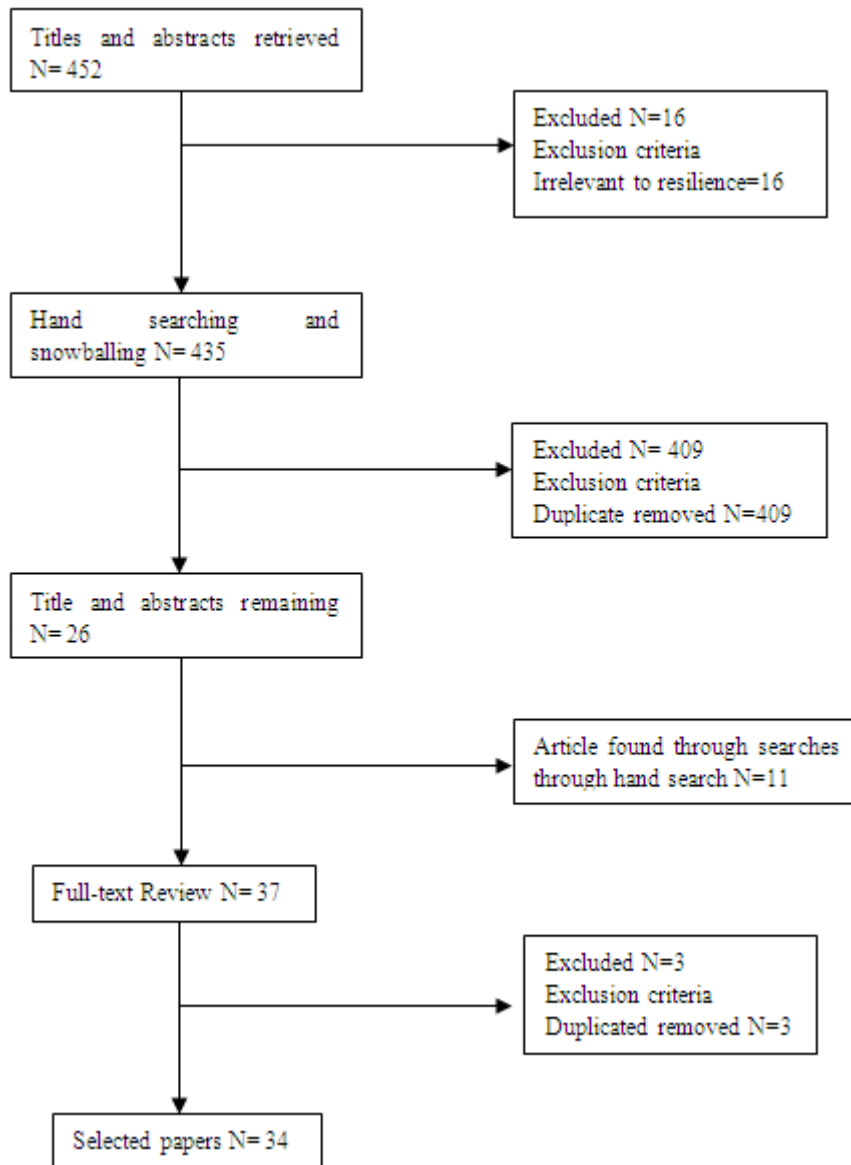


Figure 1. Paper selection strategy

**Table 1.** Characteristics of Selected Papers in the Turkish context

Study authors, year	Methodology	Aim	Participants	Instruments	Findings
1. Arastaman and Balci, 2011	Quantitative	to examine the resilience among high school students	N=509 (42.6% males, 57.4% females)	Student Resiliency Scale School Climate Scale Teacher Attitude and Behavior Scale Family and Peer Support Scale	Perceived support from family and peers were important predictors of student resiliency.
2. Sahin-Baltaci and Karatas, 2014	Quantitative (Scale construction)	to develop a new scale, called the "Resilience Scale for Early Adolescents" (RSEA)	-Focus group: N= 50 -Survey: N=760 secondary school students	Resilience Scale for Early Adolescents	It is a reliable and valid instrument.
3. Gizir and Aydin, 2009	Quantitative	to examine the potential individual characteristics and environmental protective factors that promote academic resilience	N=872 (439 girls, 433 boys) 8th grade students with low SES	Resilience and Youth Development Module Scholastic Competence Scale Beck Hopelessness Scale Nowicki-Strickland Locus of Control Scale Academic Achievement	School expectations, academic abilities, peer support, parental expectation, educational aspirations, hope for the future, and positive self-perceptions were linked to academic resilience.
4. Balci-Celik, 2013	Quantitative	to reveal whether university students' level of resilience differ by gender and attitude toward grief	N=259	Attitude to Grief Scale Resilience Scale	Resilience was found to be a significant predictor of attitude toward grief.
5. Guloglu and Karairmak, 2010	Quantitative	to investigate the relationship between self-esteem and resilience associated with loneliness	N=410 (296 females, 114 males) college students	UCLA Loneliness Inventory Rosenberg Self-Esteem Inventory Ego-Resilience Scale	Self-esteem and resilience were important predictors of loneliness.
6. Yilmaz-Irmak, 2011	Quantitative	to investigate the risk and protective factors regarding resiliency	N=1607	Brief Symptom Inventory Rosenberg Self-esteem Scale Nowicki Strickland Locus of Control Scale Perceived Peer Support Scale	Secure attachment to mother was protective, whereas severity of abuse was a risk factor.
7. Onder and Gulay, 2008	Quantitative	to investigate resilience among adolescents associated with gender, self-concept, educational levels of parents	N=98 (64.3% girls, 35.7% boys) 8th grade students	Scale of Resilience and Adolescent Development Piers-Harris Scale of Self-Concept	Gender and self-concept were linked to resilience.
8. Yilmaz and Sipahioglu, 2012	Quantitative	to investigate adolescents' resilience levels	N=499 high school students	Resilience and Youth Development Module Resilience Scale Life Orientation Test	Low SES, living with single parents, gender, and school type differentiate on resilience.
9. Terzi, 2008	Quantitative	to determine at which level internal protective factors predict resilience	N=264 college students	Generalized Self Efficacy Scale Active Planning Subscale of The Attitudes of Coping With Stress Inventory	Optimism, self efficacy, problem solving coping are the significant predictors of resilience.

10. Kaner and Bayrakli, 2010	Quantitative (Scale construction)	to construct and validate Family Resilience Scale	Survey N=524 (parents)	Family Resilience Scale	It is a valid and reliable instrument.
11. Terzi, 2013	Quantitative	to examine the role of a secure attachment style and coping strategies and their interactions regarding resilience	N= 225 (70.5 female, 30.% male) college students	Resilience Scale Relationship Scale Questionnaire Coping Questionnaire Inventory	Secure attachment style, and coping styles of active planning, avoidance/biochemical, and acceptance/cognitive restructuring were significant predictors of resilience.
12.Oksuz and Guven, 2014	Quantitative	to investigate relationship between psychological resilience and procrastination levels of teacher candidates	N=196 (86 male, 110 female)	Resilience Scale for Adults Tuckman Procrastination Scale	Procrastination levels of teacher candidates predicted resilience.
13. Akgemci, Demirsel, and Kara, 2013	Quantitative	to reveal the effect of the psychological resilience on the burn-out levels of the academics	N=44 (aged 20-40 years) Academicians	Friborg et al. (2005)'s scale Maslach and Jackson (1982)'s scale	The burnout levels were associated with resilience.
14.Ogelman, 2014	Quantitative	to investigate ego resiliency of preschool children according to opinions of mother, father, and teacher	N= 150 (parents) N=25 kindergarten teachers	Children's Ego Resiliency Scale	A positively significant relation was determined between the opinions of mothers, fathers, and teachers regarding the ego resiliency levels of children.
15. Celik, 2013	Quantitative	to analyze resilience characteristics of senior high school students	N=381	Resilience Scale Berkeley Expressivity Scale	Emotional expression strongly predicted resilience.
16.Tumlu, 2013	Quantitative	to investigate resilience in terms of gender, family type, perceived maternal, and paternal attitudes.	N=735 sophomore and junior students	Connor and Davidson Resilience Scale	Gender and maternal attitudes of college students differed resilience levels.
17. Soyer, Gulle, Mizrak, Zengin, and Kaya, 2013	Quantitative	to examine whether physical activity associated with resilience	N=143 people with disabilities (115 male, 28 female)	Resilience Scale	Physical activity among individuals with disability predicted resilience.
18. Kaner, Bayrakli and Guzeller, 2011	Quantitative	to investigate whether having a child with and without intellectual disability, being mother or father, and parental age associated with resilience	N=524 (parents)	Parental Resiliency Scale	Parents of children without disability perceived themselves more resilient in terms of parental resilience.
19. Karairmak and Sivas-Cetinkaya, 2011	Quantitative	to examine the relationship of psychological resilience, self-esteem, and positive and negative affects	N=363 (224 male, 138 female) earthquake survivors	Ego-Resilience Scale Rosenberg Self-Esteem Inventor Positive and Negative Affect Scale Rotter's Internal-External Locus of Control Scale	Role of negative affects predicted resilience.
20. Gizir, 2007	Literature review (no systematic review)	to review studies on resilience worldwide	-	-	To overcome risk or adverse life circumstances in Turkey, resilience is a prominent approach.
21. Basim and Cetin, 2010	Quantitative (validation of scale)	to validate scale in Turkish population	N=350 (students) N=262 (employees)	Resilience Scale for Adults	It is a reliable and valid instrument.

22. Oktan, 2012	Literature review (no systematic review)	to define the concept of resilience and examine the place and importance of hope in high levels of psychological resilience.	-	-	Hope can be utilize as one of the significant protective factors in resilience.
23. Karairmak, 2006	Literature review (no systematic review)	to explain the construct of resilience, define risk and protective factors and summarize the research findings regarding resilience.	-	-	Resilience should be utilized in interventions.
24. Inci and Bayik-Temel, 2013	Quantitative (scale validation)	to validate the Family Index of Regenerativity and Adaptation General (FIRA-G) in Turkey concept.	N=456 (families)	Family Index of Regenerativity Adaptation General (FIRA-G)	It is a reliable and valid instrument.
25. Cihan-Gungor, 2014	Quantitative (scale validation)	to validate in Turkish and to examine the reliability and validity of the Family Resilience Assessment Scale (FRAS)	N=665 (adults who exposed to trauma)	Family Resilience Assessment Scale	It is a reliable and valid instrument.
26. Gurgan, 2006	Quantitative (scale construction)	to develop a new scale for Turkish samples	N=419 (college sample) N=112 (college sample)	Resiliency Scale	It is a reliable and valid instrument.
27. Bitmis, Sokmen, and Turgut, 2013	Quantitative	to analyze the potential mediating role of organizational identification in the relationship between resilience and burnout.	N=430 employees	Resilience Scale for Adults Maslach and Jackson's Burnout Inventory Mael and Ashforth's identification scale	Resilience positively affects organizational identification and negatively affects employee's burnout level
28. Gonen and Purutcuoglu, 2009	Literature review (no systematic review)	to explore the family resilience in crisis	-	-	Family resilience is prominent in adverse circumstances.
29. Tasgin and Cuhadaroglu-Cetin, 2006	Literature review (no systematic review)	to review the risk factors, preventive factors and resiliency in terms of adolescent depression	-	-	Adolescent depression is a multilevel phenomenon
30. Karatas and Cakar, 2011	Quantitative	to explore self-esteem and hopelessness as the predictor of resiliency among adolescents	N=223 (90 female, 133 male) high school students	Beck Hopelessness Scale California Healthy Kids Survey Resilience-Youth Development Module High School Questionnaire Coopersmith Self-Esteem Scale	Self-esteem and hopelessness are significant predictors of resilience in adolescents.
31. Kaner and Bayrakli, 2010	Quantitative (scale construction)	to develop Mother Resilience Scale to assess mothers' perception of resilience	N=307 mothers	Mother Resilience Scale	It is a reliable and valid instrument.
32. Kapikiran, 2012	Quantitative (scale validation)	to validate Academic Resilience Scale	N= 378 (192 female, 186 male) high school students	Academic Resilience Scale	It is a reliable and valid instrument.

33. Oktan, Odaci, and Celik, 2014	Quantitative	to investigate the relationship between psychological birth order and resilience	N=450 (66.9% female, 33.1% male) college students	Resiliency Scale Psychological Birth Order Inventory	Resilience was negatively correlated with the oldest and the youngest child psychological birth order and positively correlated with middle psychological birth order.
34. Kesebir, Gundogar, Kucuksubasi, & Tatlidil Yaylaci, 2013	Quantitative	to examine the relationship between affective temperament and resilience in patients with major depressive disorder.	N=100 patients with major depressive disorders N=100 control group	Evaluation of Temperament Memphis, Pisa, Paris, and San Diego-Auto Questionnaire The Resilience Scale for Adults	The relationship between affective temperament and family cohesion of psychological resilience found to be different from that of healthy individuals.



A review of the research designs utilized in these studies revealed that the majority of studies were quantitative (21 in total). On the other hand, there were five literature review, four scale validation, and four scale construction.

There were eleven logistic regression, one correlation, and nine descriptive studies (21 in total). Moreover, within the quantitative studies, sample sizes typically ranged from 44 to 1607 (e.g., samples of 225 and 735, see Table 1). Further, overall quantitative studies focused on adolescents (Arastaman & Balci, 2013; Celik, 2013; Gizir & Aydin, 2009; Karatas & Cakar, 2011; Onder & Gulay, 2008; Soyer, Gulle, Mizrak, Zengin, & Kaya, 2013; Yilmaz-Irmak, 2011; Yilmaz & Sipahioglu, 2012), people with disabilities (Soyer et al., 2013), family (Kaner, Bayrakli, & Guzeller, 2011; Ogelman, 2014), earthquake survivors (Karairmak & Sivis-Cetinkaya, 2011), employees (Akgemci, Demirsel, & Kara, 2013; Bitmis, Sokmen, & Turgut, 2013), college students (Balci-Celik, 2013; Guloglu & Karairmak, 2010; Oktan, Odaci, & Celik, 2014; Terzi, 2008, 2013; Tumlu, 2013), and teachers (Oksuz & Guven, 2014). To sum up, existing studies were predominantly compromised of college and high school students. Moreover, there were only six articles targeting at-risk sample such as economically disadvantaged, physically abused, patients with major depression disorder, intellectual disability, people with disability, single-parent households, and earthquake survivors (Table 1).

Among scale construction studies, only one study conducted a focus group prior to quantitative stage (Sahin-Baltaci & Karatas, 2014), yet other studies solely employed quantitative studies (Gurgan, 2006; Kaner & Bayrakli, 2010a, 2010b) lacking pilot or cognitive pretesting studies. Moreover, among scale validation studies, only one study consisted of at-risk population (exposed to trauma) (Cihan-Gungor, 2014) while others did not consider involving risk and protective factors in terms of scale validation and construction (Basim & Cetin, 2010; Inci & Bayik-Temel, 2013; Kapikiran, 2012). Additionally, based on this literature review, none of the studies have included systematic review or meta-analysis (Gizir, 2007; Gonen & Purutcuoglu, 2009; Karairmak, 2006; Oktan, 2012; Tasgin & Cuhadaroglu-Cetin, 2006) which lacks the quality of existing reviews.

Regarding current systematic review, school expectations, academic ability, educational aspirations and positive self-perceptions (Gizir & Aydin, 2009), attitude towards grief (Balci-Celik, 2013), self-esteem and hope (Karatas & Cakar, 2011), loneliness (Guloglu & Karairmak, 2010), gender (Onder & Gulay, 2008; Tumlu, 2013), self-concept (Onder & Gulay, 2008), optimism, self-efficacy, problem solving skills (Terzi, 2008), procrastination (Oksuz & Guven, 2014), burnout levels (Akgemci et al., 2013; Bitmis et al., 2013), emotional expression (Celik, 2013), physical activity (Soyer et al., 2013), disability (Kaner et al., 2011), role of affects (Karairmak & Sivis-Cetinkaya, 2011), school, climate, teachers attitudes, and behaviors, parental

expectations, family and peer support (Arastaman & Balci, 2013; Gizir & Aydin, 2009) were found to be protective factors. In addition to personality traits and environmental resources, the following variables were also reported to anchor resilience: secure attachment to mother (Yilmaz-Irmak, 2011), parents' educational level (Onder & Gulay, 2008), the opinions of parents and teachers (Ogelman, 2014), parental attitude and family structure (Onder & Gulay, 2008), and family cohesion (Kesebir et al., 2013).

## Discussion

The purpose of this paper was to undertake a critical systematic review of resilience research in the Turkish context and to distill lessons learned that may be useful in designing interventions aimed to empower individuals. The trait-based resilience appeared to be the focus of the Turkish studies rather than the socio-ecological systems (Oktan, 2012). Hence, Turkish studies typically conceptualize resilience as the sum of two or more triad of protective resources (mostly individual traits). In essence, studies focused only on one or two dimensions of resources may overlook the interaction between factors (e.g., community, spirituality). Further, owing to the relative newness of the concept in the Turkish context, the range of variables that may have an impact has not been fully explored, with more attention having been paid to personality traits rather than socio-ecological perspective such as school, community, and cultural contexts.

In many ways, attempts to understand socio-ecological resilience approach should be embedded in hybrid synthesized studies. To date, unfortunately, most quantitative Turkish studies aimed to either validate or construct scales instead of measuring individuals' protective and risk factors underpinning ecological niches. To gain a comprehensive understanding of the roots of, and pathways to, concerning Turkish resilience, future designs must include rich qualitative and mixed-method designs. Accordingly, international resilience research has adopted visual research tools such as participatory action research with at-risk population is prominent to signify relationships and unexplored life settings (Theron & Theron, 2010), none of Turkish studies elaborated or emphasized the significance of this type of research.

Based on this review, recommendations for future research are outlined. Although Turkish studies, to date, have predominantly provided a documentation of protective factors in relation to trait-based resilience, rather than a socio-ecological perspective, these existing studies provide social workers with an understanding of what has contributed to the resilience of Turkish population. Next, very little research has targeted to include vulnerable sample. However, investigating resilience in the absence of risk factors might not elucidate individuals' strengths and coping skills to overcome adversity.

## Implication for Practice

This review provides social workers and other professionals with an agenda for considering and integrating socio-ecological processes that can foster resilience which is concordant with other studies (Fraser, Galinsky, & Richman, 1999; Guo & Tsui, 2010). Marttila, Johansson, Whitehead, and Burström (2012) found that social workers emphasize the supporting social systems are paramount in resilience-enhancing interventions. Similarly, Ungar (2013) suggested that resilience-based interventions should consist of social support, the accessibility and availability of formal services to help vulnerable population. Additionally, social workers should be trained for the promotion and usage of resilience in interventions (McAllister & McKinnon, 2009). To sum up, social workers should act as enablers and guiders to integrate individuals' strengths, coping skills (Pulla, 2013), and available resources embedded in social contexts to fuel resilience (Gitterman & Sideriadis, 2014).

## Conclusions

In light of this review, resilience loudly calls for resilience regarding socio-ecological perspective such as social factors (e.g., neighborhood) to empower individuals. Further research is needed to address hybrid studies in participatory action research amplifying socio-ecological contexts.

There are unavoidable limitations during the current systematic review. First, the small number of published articles is reflective of the low priority placed on protective factors such supportive parents and peers. Although it is not feasible to conclude that protective factors is of low priority, however, reasonable to say that the examination of Turkish individuals' protective factors accounted for social resources is infrequent.

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